



## FRAMELESS MODULES VG – P – 295-310 W

Tempered glass with high optical transmittance

## High efficiency cells with anti-reflective layer

### Quick connectors, double insulated flexible cable





 Qualified, IEC 61215
Safety tested, IEC 61730
Heavy Snow Load tested
Periodic inspection





ELECTRICAL CHARACTERISTICS					
Maximum power (Pmpp)	Watts	295 W	300 W	305 W	310 W
Tolerance	%	0 ~ + 3			
Voltage at maximum power (Vmpp)	Volts	35.98	36.28	36.51	36.62
Current at maximum power (Impp)	Amperes	8.20	8.27	8.35	8.46
Open circuit voltage (Voc)	Volts	44.42	44.78	45.07	45.22
Short circuit current (Isc)	Amperes	8.63	8.77	8.83	8.90
Maximum system voltage (Vsyst)	Volts	600 (UL) / 1000 (IEC)			
Diodes (By-pass)	Quantity	6			
Maximum series fuse	Amperes	15			
Efficiency (m)	%	15.20	15.46	15.72	15.98
Form Factor	%	73			
Protection	Grade	IP-65			

MECHANICAL CHARACTERISTICS		
Size	mm	1950x986x30
Weight	Net	29 kg.
Structure	Material	Anodized aluminum AL6063-T5, minim 15 µm
	Туре	Polycrystalline
Cells	Quantity	6 x 12 = 72
	Size	156 x 156 mm.
Encapsulation	Materials	4 mm Glass/EVA/Cells/EVA/TPT
Junction box	Туре	IP-65 – TÜV-IEC/EN 61215
	Isolation	Versus humidity and inclement weather
Cables	Туре	900 mm, polarized and symmetric in length
Connectors	Туре	Compatible Type III and Type IV



TEMPERATURE COEFFICIENTS					
Coefficient of short circuit current (Icc)	+ 0.055 %/º C				
Coefficient of open circuit voltage (Voc)	- 0.347 %/º C				
Coefficient of power (Pmpp)	- 0.48 %/º C				
Maximum power temperature coefficient (Impp)	+ 0.10 %/º C				
VoltageT coefficient of maximum power (Vmpp)	- 0.38 %/º C				
NOCT (Nominal Operating Cell Temperature)	+ 47 ± 2 ° C				

TOLERANCES	
Working temperature	- 40 ~ + 85 ° C
Dielectric Isolation Voltage	3000 V
Wind resistance	60 m/s
Mechanical load-bearing capacity	551 kg./m <sup>2</sup>
Fire resistance	Class C

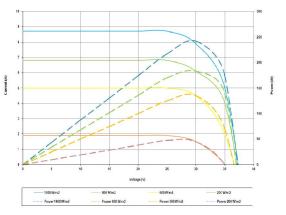
### **CHARACTERISTICS OF WORK**

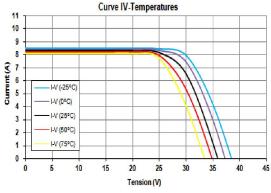
The power of solar cells varies in the output of the production process. The different power specifications of these modules reflect this dispersion.

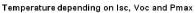
Cells during the early months of light exposure, may experience a degradation photonics could decrease the value of the maximum power the module up to 3 %.

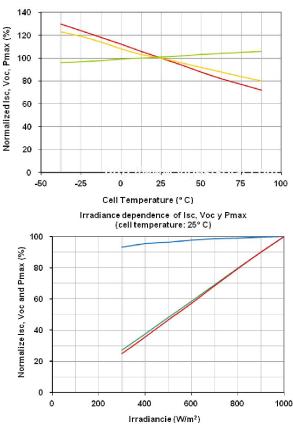
The cells, in normal operating conditions, reach a temperature above the standard measurement conditions of the laboratory. The NOCT is a quantitative measure of the increase. NOCT measurement is performed under the following conditions: radiation of 0.8 kW/m2, temperature 20° C and wind speed of 1 m/s. The electrical data reflect typical values of the modules and laminates as measured at the output terminals at the end of the manufacturing process.

# WARRANTIES Manufacturing defects - 12 years Performance - 90 % at 12 years; 80 % at 25 years. Bulgaria Spain Italy **Calle Almendralejos 25** Via Della Poesia 5 D. Manov street 2814 Madrid 547030 (FC) 1408 Sofia Tel./Fax: (+39) 5411793069 Tel./Fax: (+34) 91623245 Mobile: (+34) 3474533429 Mobile: (+34) 646180927 Mobile: (+359) 886 497607









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